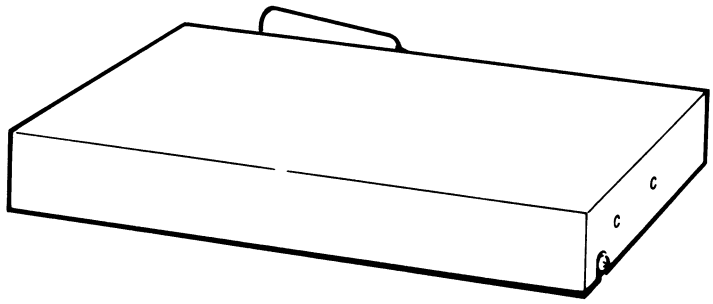
XT-20

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model



SPECIFICATIONS

FM tuner section

Tuning range	87.9 – 107.9 MHz (US, Canadian models) 87.5 – 108.0 MHz (AEP, E models)
Antenna terminal	FM/AM external antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	11.2 dBf (1.0 μV/75 ohms)
Sensitivity at 50 dB quieting	16.4 dBf (1.8 μV/75 ohms)
Frequency response	30 Hz - 15,000 Hz

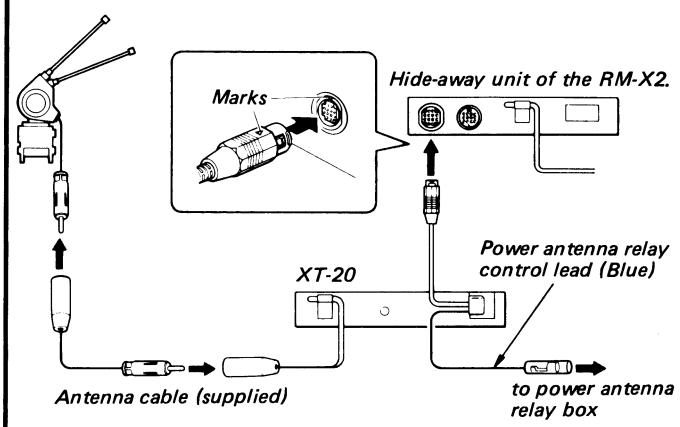
AM tuner section

Tuning range	530 – 1,620 kHz (US, Canadian, E model) 531 – 1,602 kHz (AEP model)
Antenna terminal	FM/AM external antenna connector
Intermediate frequency	450 kHz
Sensitivity	28 μV

General

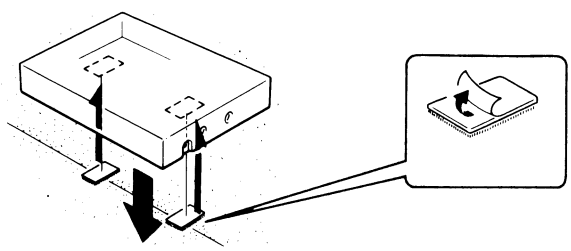
Power requirements	12 V DC car battery (negative ground)
Current drain	300 mA
Operating temperature	– 10°C - 55°C (14°F - 131°F)
Dimensions	Approx. 178 × 25 × 135 mm (w/h/d) (7 1/8 × 1 × 5 3/8 inches)
Weight	Approx. 0.7 kg (1 lb 9 oz)
Accessories supplied	Velcro tapes (2) Antenna cable (1)

CONNECTIONS



INSTALLATION

Install on the carpet in the trunk room or under the seats, using the supplied Velcro tapes.



You can also install this unit together with the hide-away unit of the RM-X2. For the detailed information, refer to the instruction manual of the RM-X2.

MICROFILM

For operating, this set requires connecting to a hide-away unit of RM-X2. When servicing, refer to the service manual of RM-X2 as well.

FM/AM TUNER UNIT

SONY®

MODEL IDENTIFICATION

US, Canadian model

SONY® MODEL NO. XT-20

FM-AM TUNER UNIT
FREQUENCY RANGE:
FM 87.9 ~ 107.9MHz
AM 530 ~ 1620MHz

DC : 12V ⎓ NEGATIVE GROUND
SERIAL NO.

MADE IN JAPAN

AEP model

SONY® MODEL NO. XT-20

FM-AM TUNER UNIT
FREQUENCY RANGE:
FM 87.5 ~ 108MHz
AM 531 ~ 1602KHz

DC : 12V ⎓ NEGATIVE GROUND
SERIAL NO.

MADE IN JAPAN

E model

SONY® MODEL NO. XT-20

FM-AM TUNER UNIT
FREQUENCY RANGE:
FM 87.5 ~ 108MHz
AM 530 ~ 1620KHz

DC : 12V ⎓ NEGATIVE GROUND
SERIAL NO.

MADE IN JAPAN

SECTION 1
ELECTRICAL ADJUSTMENTS

• Connect the unit to the hide-away unit of the RM-X2.

Note:
FM Front-End(FE1) and AM Front-End(TU51) are difficult to repair. Replace the whole unit with a new one.

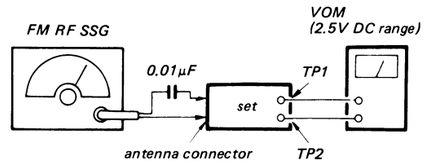
Explanation on RM-X2 SENS button

SENS button	Mode	
	FM	AM
1st push	LCL Mode (STEREO, LOCAL Mode)	LCL Mode (LOCAL Mode)
2nd push	MONO Mode (MONO, DX Mode) STEREO INDICATOR goes out.	LCL Mode is canceled. (DX Mode)
3rd push	MONO Mode is canceled. (STEREO, DX Mode)	———

FM Discriminator Alignment

Setting: MONO Mode
(See the Explanation on RM-X2 SENS button.)

Procedures:



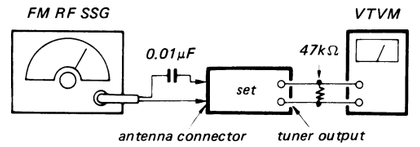
Carrier frequency: *97.9 MHz (US, Canadian Model)*
98.0 MHz (AEP, E Model)
Output level: *60 dB (1 mV)*
Modulation: *1 kHz, 75 kHz deviation (100%)*

1. Tune to the frequency above.
2. Connect the VOM to the NULL test points (TP1, TP2), adjust the primary core of T1 so that the reading of the VOM becomes 0V.

FM Stereo Separation Adjustment

Setting: STEREO, DX Mode

Procedures



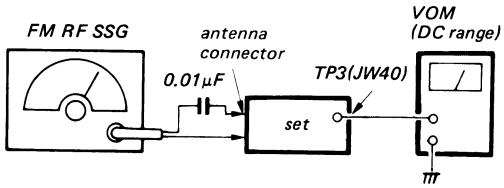
Carrier frequency: *97.9 MHz (US, Canadian Model)*
98.0 MHz (AEP, E Model)
Output level: *60 dB (1 mV)*
Modulation: *main: 1 kHz, 33.75 kHz deviation (45%)*
sub: 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot: 7.5 kHz deviation (10%)

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV2 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV2 for minimum reading.

L-CH Stereo separation: Ⓐ – Ⓑ
R-CH Stereo separation: Ⓒ – Ⓓ
The separations of both channels should be equal.

FM Auto-Scanning Stop Level Adjustment

Setting: STEREO, DX Mode



Carrier frequency: *97.9 MHz (US, Canadian Model)*
98.0 MHz (AEP, E Model)
Output level: *60 dB (1 mV)*
Mode: *monaural, no modulation*

Procedures:

1. Tune to the frequency above.
2. Reduce the output level of the FM RF SSG to 28 dB.
3. Adjust RV1 to the point where the reading of the VOM becomes 0V abruptly, and confirm that the reading of the VOM changes 0V to 5V or vice vasa within ±5 dB of FM RF SSG output level.

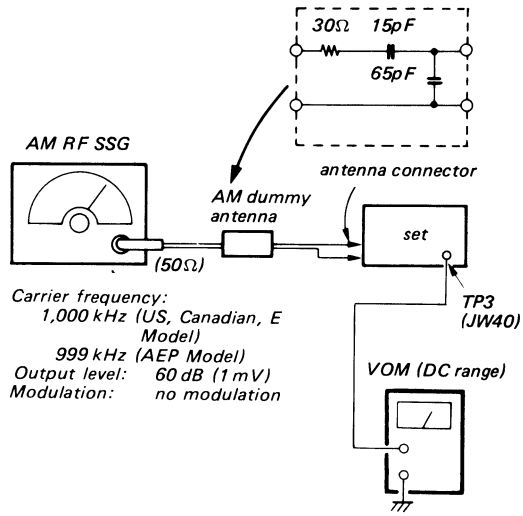
AM Auto-Scanning Stop Level Adjustment

Note:
Be sure to perform this adjustment after FM Auto-Scanning Stop Level Adjustment.

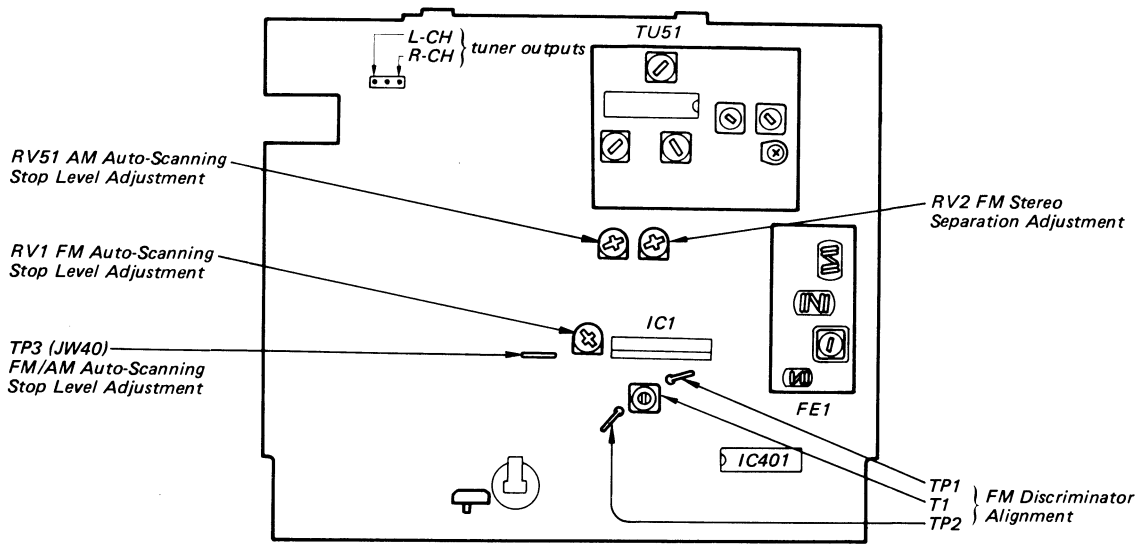
Setting: DX Mode

Procedures:

1. Tune to the frequency of the AM RF SSG.
2. Reduce the output level of the AM RF SSG to 35 dB.
3. Adjust RV51 to the point where the reading of the VOM becomes 0V abruptly, and confirm that the reading of the VOM changes 0V to 5V or vice vasa within ±5 dB of AM RF SSG output level.



Carrier frequency:
1,000 kHz (US, Canadian, E Model)
999 kHz (AEP Model)
Output level: *60 dB (1 mV)*
Modulation: *no modulation*



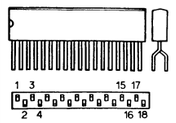
(Component side)

SECTION 2 DIAGRAMS

2-1. PRINTED WIRING BOARD

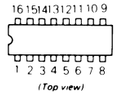
SEMICONDUCTOR LEAD LAYOUTS

LA1145



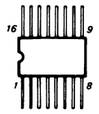
STK3400

LM7001



2SA1179

LC74HC365M



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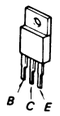

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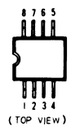

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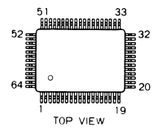

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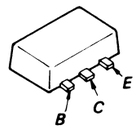
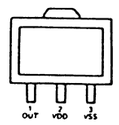


S-8054HN-CB-S



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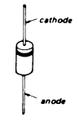
2SC3398
2SD1622

10E2



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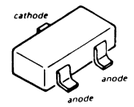

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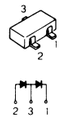
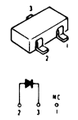


HD5.6M-B1
RD6.2M-B1
RD9.1M-B1
RD10M-B2
RD16M-B
RD18M-B2
RD33M-B1



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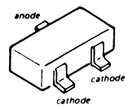
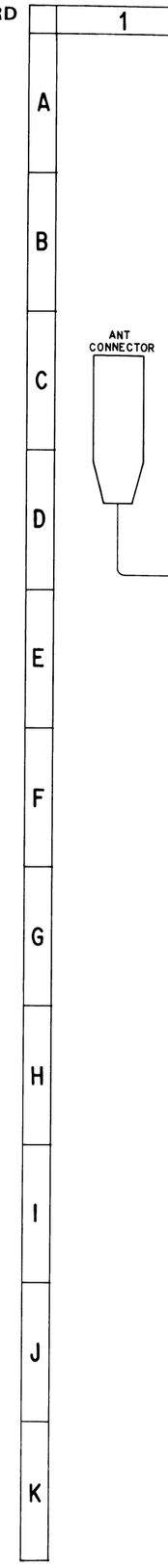


• SEMICONDUCTOR LOCATIONS

Ref. No.	Location	Ref. No.	Location
D2	G-8	Q1	F-4
D51	D-3	Q2	F-3
D52	D-2	Q3	F-3
D53	D-2	Q5	H-3
D54	B-9	Q6	G-8
D101	B-13	Q101	B-13
D201	I-12	Q102	B-13
D401	G-9	Q103	B-12
D501	C-12	Q104	B-13
D502	D-11	Q201	J-15
D503	C-14	Q401	C-7
D504	D-12	Q402	B-7
D505	C-12	Q403	J-3
D506	C-13	Q404	J-3
D507	D-13	Q405	I-2
D508	E-14	Q406	I-3
		Q407	J-6
IC1	H-6	Q408	J-7
IC101	B-10	Q409	J-8
IC201	I-14	Q501	D-11
IC202	I-12	Q502	E-11
IC203	I-14	Q503	C-14
IC401	J-4	Q504	E-12
		Q505	E-13
CP1	F-6	Q506	D-13
		Q507	D-13



Note:

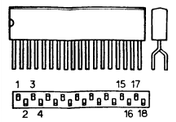
- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.

SECTION 2
DIAGRAMS

2-1. PRINTED WIRING BOARD

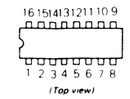
SEMICONDUCTOR LEAD LAYOUTS

LA1145



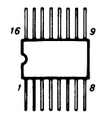
STK3400

LM7001



2SA1179

LC74HC365M



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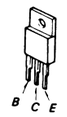

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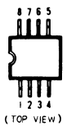

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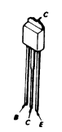
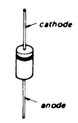
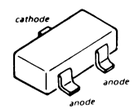


10E2



DCB015



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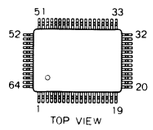

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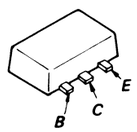
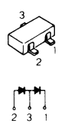
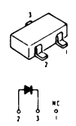


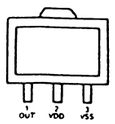
DCC010



RD5.6M-B1
RD6.2M-B1
RD9.1M-B1
RD10M-B2
RD16M-B
RD18M-B2
RD33M-B1



S-8054HN-CB-S



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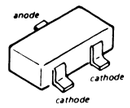
DCA015



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D53	D-2	Q5	H-3
D54	B-9	Q6	G-8
D101	B-13	Q101	B-13
D201	I-12	Q102	B-13
D401	G-9	Q103	B-12
D501	C-12	Q104	B-13
D502	D-11	Q201	J-15
D503	C-14	Q401	C-7
D504	D-12	Q402	B-7
D505	C-12	Q403	J-3
D506	C-13	Q404	J-3
D507	D-13	Q405	I-2
D508	E-14	Q406	I-3
		Q407	J-6
IC1	H-6	Q408	J-7
IC101	B-10	Q409	J-8
IC201	I-14	Q501	D-11
IC202	I-12	Q502	E-11
IC203	I-14	Q503	C-14
IC401	J-4	Q504	E-12
		Q505	E-13
CP1	F-6	Q506	D-13
		Q507	D-13

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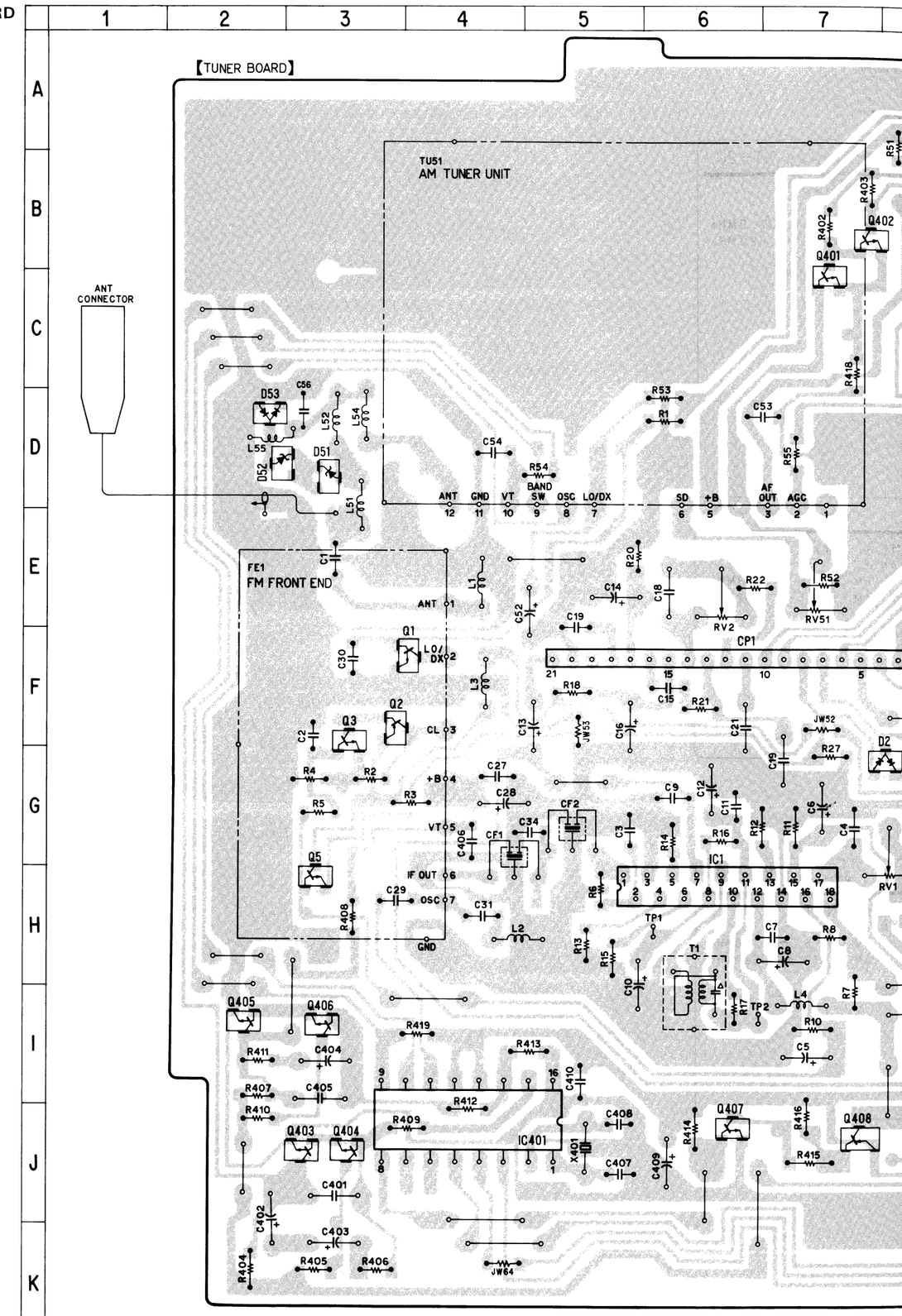
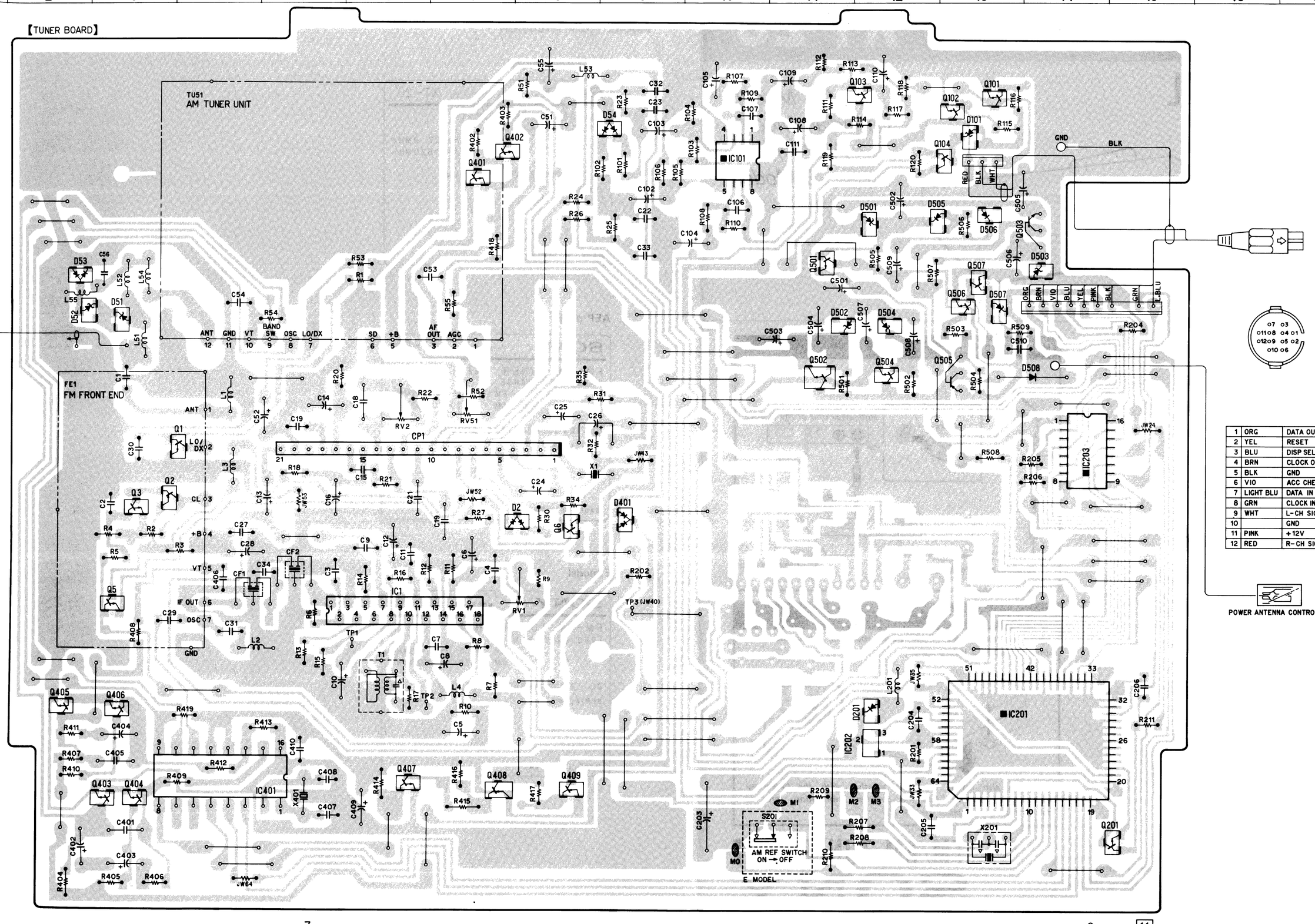
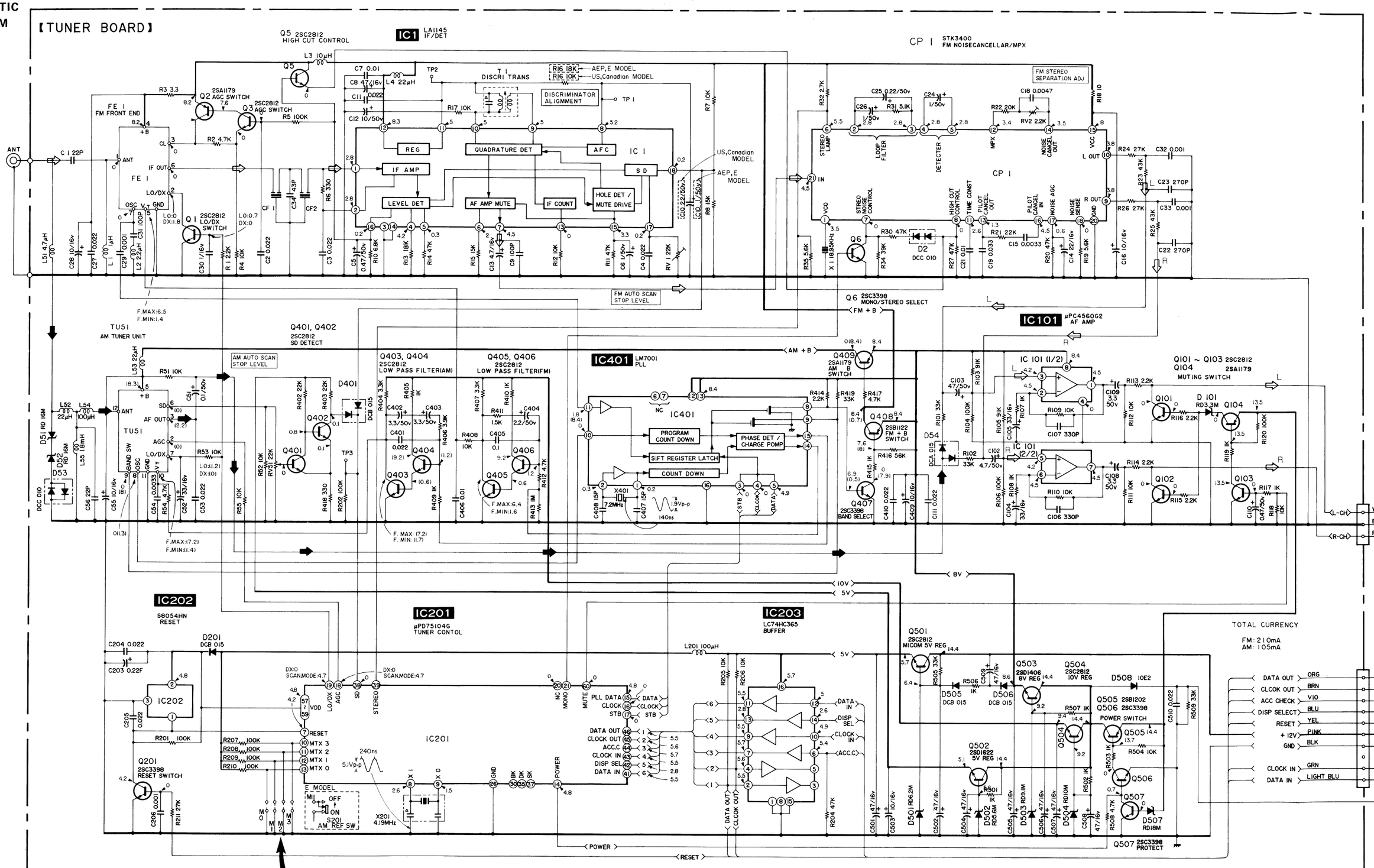
- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.



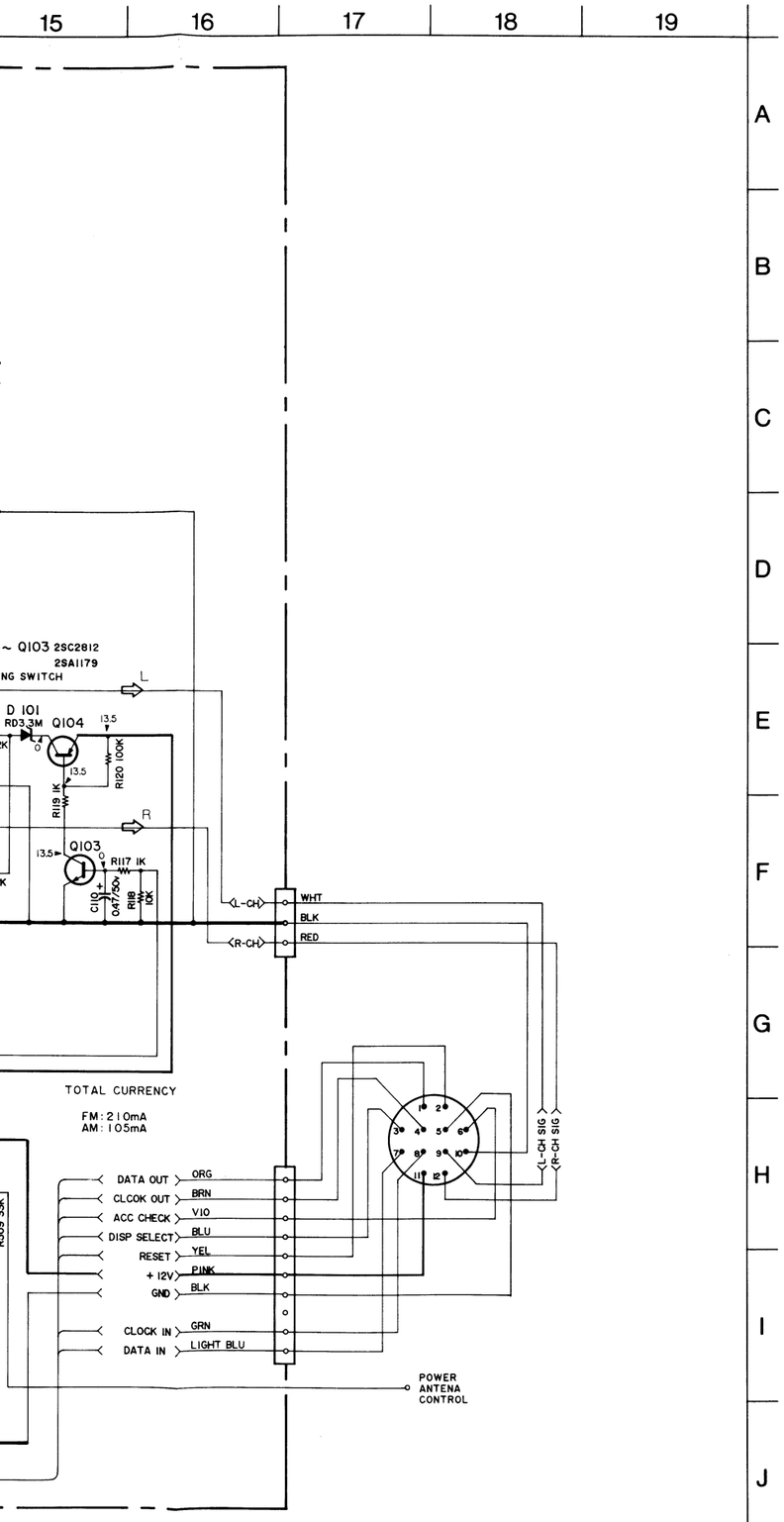

【TUNER BOARD】
TU51
AM TUNER UNIT
ANT CONNECTOR
FE1
FM FRONT END
IC1
IC101
IC201
IC202
IC203
IC401
CP1
ANT GND VT BAND SW OSC LO/DX SD +B AF OUT AGC
GND BLK
RED BLK WHT
ORG BRN VIO BLU YEL PNK BLK GRN L-BLU
07 03
01108 04 01
01209 05 02
010 06
1 ORG DATA OUT
2 YEL RESET
3 BLU DISP SELECT
4 BRN CLOCK OUT
5 BLK GND
6 VIO ACC CHECK
7 LIGHT BLU DATA IN
8 GRN CLOCK IN
9 WHT L-CH SIG
10 GND
11 PINK +12V
12 RED R-CH SIG
POWER ANTENNA CONTROL
S201
AM REF SWITCH
ON → OFF
E MODEL
M0 M1 M2 M3
IF OUT
OSC
VT
+B
TP1 TP2 TP3 (JW40)
X201
X401

2-2. SCHEMATIC DIAGRAM

【TUNER BOARD】



MODEL	Jumper Switch Terminals			
	M3	M2	M1	M0
US, Canadian	jumper	jumper	jumper	jumper
AEP	OPEN	jumper	OPEN	OPEN
E	jumper	OPEN	S201 ON	jumper



Note:

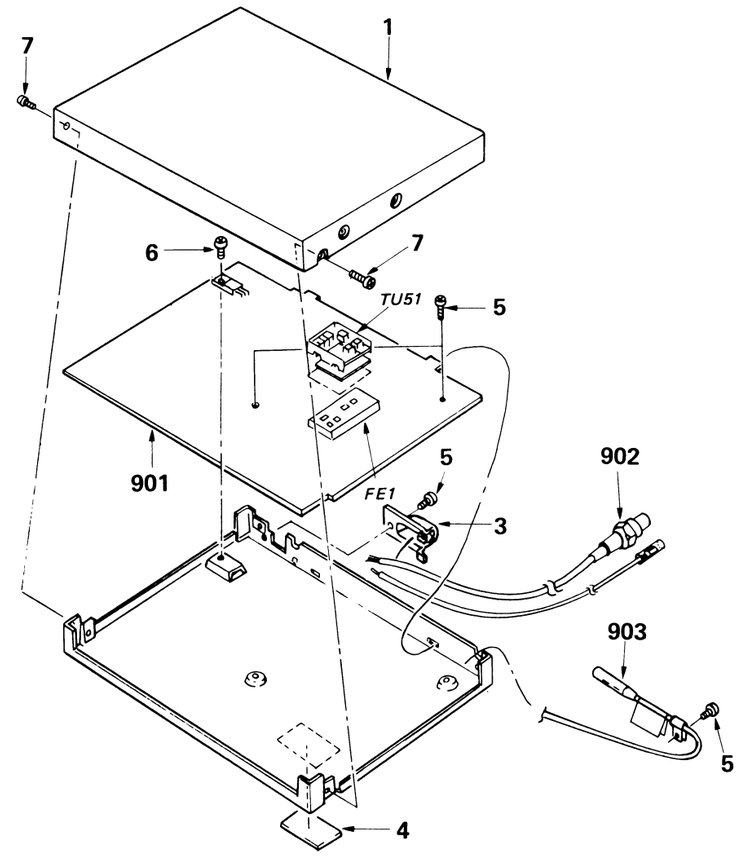
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/s W or less unless otherwise specified.
- △ : internal component.
- ▬▬ : B+ bus.
- : adjustment for repair.
- Power voltage is 14.4 V dc and fed with regurated dc power supply from ACC and BACK UP cords.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  ( ): AM
  LO: LOCAL Mode
- Voltages are taken with a VOM (50 kΩ/V.)
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : L-CH
  ⇨ : R-CH
  ➡ : AM
- Switches:

Ref. No.	Switch	Position
S201 (E Model)	(9k/10k)	10k

SECTION 3
EXPLODED VIEW AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color



No.	Part No.	Description	Remarks
1	3-320-614-11	LID, UPPER	
3	*3-320-587-01	STOPPER (C), CORD	
4	*3-567-763-01	(US)....LABEL, MODEL NUMBER (US)	
	*3-567-764-01	(AEP)...LABEL, MODEL NUMBER	
	*3-567-765-01	(E).....LABEL, MODEL NUMBER	
5	7-682-146-01	SCREW +PTT 3X5 (S)	
6	7-621-770-87	SCREW +B 2.6X5	
7	7-682-544-04	SCREW +B 3X3	
901	*A-3266-439-A	(US,Canadian)...MOUNTED PCB, TUNER	
	*A-3266-441-A	(AEP,E).....MOUNTED PCB, TUNER	
902	*1-558-345-11	CORD, CONNECTION	
903	1-556-826-00	CORD (WITH CONNECTOR) (ANT)	

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No.	Part No.	Description			
901	*A-3266-439-A	(US,Canadian)...MOUNTED PCB, TUNER			
	*A-3266-441-A	(AEP,E).....MOUNTED PCB, TUNER			
902	*1-558-345-11	CORD, CONNECTION			
903	1-556-826-00	CORD (WITH CONNECTOR) (ANT)			
C1	1-163-165-00	CERAMIC MELF	22PF	5%	50V
C2	1-163-063-00	CERAMIC MELF	0.022MF		25V
C3	1-163-063-00	CERAMIC MELF	0.022MF		25V
C4	1-163-063-00	CERAMIC MELF	0.022MF		25V
C5	1-124-465-00	ELECT	0.47MF	20%	50V
C6	1-123-611-00	ELECT	1MF	20%	50V
C7	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C8	1-124-236-00	ELECT	47MF	20%	16V
C9	1-163-181-00	CERAMIC MELF	100PF	10%	50V
C10	1-123-611-00	(AEP,E).....ELECT	1MF	20%	50V
C10	1-124-257-00	(US,Canadian)...ELECT	2.2MF	20%	50V
C11	1-163-063-00	CERAMIC MELF	0.022MF		25V
C12	1-124-462-00	ELECT	10MF	20%	16V
C13	1-124-259-00	ELECT	4.7MF	20%	50V
C14	1-124-234-00	ELECT	22MF	20%	16V
C15	1-163-053-00	CERAMIC MELF	0.0033MF	20%	16V
C16	1-124-462-00	ELECT	10MF	20%	16V
C18	1-130-479-00	MYLAR	0.0047MF	5%	50V
C19	1-130-489-00	MYLAR	0.033MF	5%	50V
C21	1-130-483-00	MYLAR	0.01MF	5%	50V
C22	1-163-191-00	CERAMIC MELF	270PF	10%	50V
C23	1-163-191-00	CERAMIC MELF	270PF	10%	50V
C24	1-123-611-00	ELECT	1MF	20%	50V
C25	1-124-464-11	ELECT	0.22MF	20%	50V
C26	1-123-611-00	ELECT	1MF	20%	50V
C27	1-163-063-00	CERAMIC MELF	0.022MF		25V
C28	1-124-462-00	ELECT	10MF	20%	16V
C29	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C30	1-162-611-00	CERAMIC CHIP	1MF		25V
C31	1-163-181-00	CERAMIC MELF	100PF	10%	50V
C32	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C33	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C34	1-163-172-00	CERAMIC MELF	43PF	5%	50V
C51	1-124-463-00	ELECT	0.1MF	20%	50V
C52	1-124-963-11	ELECT	33MF	20%	16V
C53	1-163-063-00	CERAMIC MELF	0.022MF		25V
C54	1-163-053-00	CERAMIC MELF	0.0033MF	20%	16V
C55	1-124-462-00	ELECT	10MF	20%	16V
C56	1-163-165-00	CERAMIC MELF	22PF	5%	50V
C102	1-124-259-00	ELECT	4.7MF	20%	50V
C103	1-124-259-00	ELECT	4.7MF	20%	50V
C104	1-124-963-11	ELECT	33MF	20%	16V
C105	1-124-963-11	ELECT	33MF	20%	16V
C106	1-163-193-00	CERAMIC MELF	330PF	10%	50V
C107	1-163-193-00	CERAMIC MELF	330PF	10%	50V
C108	1-124-258-00	ELECT	3.3MF	20%	50V
C109	1-124-258-00	ELECT	3.3MF	20%	50V
C110	1-124-465-00	ELECT	0.47MF	20%	50V
C111	1-163-063-00	CERAMIC MELF	0.022MF		25V
C203	1-125-486-11	ELECT	0.22MF		5.5V
C204	1-163-063-00	CERAMIC MELF	0.022MF		25V
C205	1-163-063-00	CERAMIC MELF	0.022MF		25V
C206	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C401	1-130-487-00	MYLAR	0.022MF	5%	50V
C402	1-124-258-00	ELECT	3.3MF	20%	50V
C403	1-124-258-00	ELECT	3.3MF	20%	50V
C404	1-124-257-00	ELECT	2.2MF	20%	50V
C405	1-130-495-00	MYLAR	0.1MF	5%	50V
C406	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C407	1-163-161-00	CERAMIC MELF	15PF	5%	50V
C408	1-163-161-00	CERAMIC MELF	15PF	5%	50V
C409	1-124-462-00	ELECT	10MF	20%	16V
C410	1-163-063-00	CERAMIC MELF	0.022MF		25V
C501	1-124-236-00	ELECT	47MF	20%	16V
C502	1-124-236-00	ELECT	47MF	20%	16V
C503	1-124-462-00	ELECT	10MF	20%	16V
C504	1-124-236-00	ELECT	47MF	20%	16V
C505	1-124-236-00	ELECT	47MF	20%	16V
C506	1-124-236-00	ELECT	47MF	20%	16V
C507	1-124-236-00	ELECT	47MF	20%	16V
C508	1-124-236-00	ELECT	47MF	20%	16V
C509	1-124-236-00	ELECT	47MF	20%	16V
C510	1-163-063-00	CERAMIC MELF	0.022MF		25V
CF1	1-567-415-11	FILTER, CERAMIC (10.7MHz)			
CF2	1-567-415-11				
CP1	1-807-502-11	IC STK3400 (75US)			
D2	8-719-936-79	DIODE DCC010			
D51	8-719-106-98	DIODE RD16M-B			
D52	8-719-106-98	DIODE RD16M-B			
D53	8-719-936-79	DIODE DCC010			
D54	8-719-940-35	DIODE DCA015			
D101	8-719-105-45	DIODE RD3.3M-B1			
D201	8-719-940-38	DIODE DCB015			
D401	8-719-940-38	DIODE DCB015			
D501	8-719-105-99	DIODE RD6.2M-B1			

Ref.No.	Part No.	Description			
D502	8-719-105-90	DIODE RD5.6M-B1			
D503	8-719-106-43	DIODE RD9.1M-B1			
D504	8-719-106-53	DIODE RD10M-B1			
D505	8-719-940-38	DIODE DCB015			
D506	8-719-940-38	DIODE DCB015			
D507	8-719-107-15	DIODE RD18M-B2			
D508	8-719-201-02	DIODE 10E2			
FE1	1-463-839-11	FRONT END			
IC1	8-759-820-06	IC LA1145			
IC101	8-759-109-70	IC UPC4560G2			
IC201	8-759-141-52	IC UPD75104G-551(S1)			
IC202	8-759-940-45	IC S-8054HN-CB-S			
IC203	8-759-804-66	IC LCH74HC365M			
IC401	8-759-803-37	IC LM7001			
JW24	1-249-366-11	CARBON MELF	0	5%	1/5W
JW33	1-249-366-11	CARBON MELF	0	5%	1/5W
JW35	1-249-366-11	CARBON MELF	0	5%	1/5W
JW43	1-249-366-11	CARBON MELF	0	5%	1/5W
JW52	1-249-366-11	CARBON MELF	0	5%	1/5W
JW53	1-249-366-11	CARBON MELF	0	5%	1/5W
JW64	1-249-366-11	CARBON MELF	0	5%	1/5W
L1	1-410-316-11	INDUCTOR	1UH		
L2	1-410-320-11	INDUCTOR	2.2UH		
L3	1-410-328-11	INDUCTOR	10UH		
L4	1-410-330-11	INDUCTOR	22UH		
L51	1-410-324-11	INDUCTOR	4.7UH		
L52	1-410-330-11	INDUCTOR	22UH		
L53	1-410-330-11	INDUCTOR	22UH		
L54	1-410-334-11	INDUCTOR	100UH		
L55	1-410-446-11	INDUCTOR	1.8MMH		
L201	1-410-334-11	INDUCTOR	100UH		
Q1	8-729-271-23	TRANSISTOR 2SC2712			
Q2	8-729-100-76	TRANSISTOR 2SA812			
Q3	8-729-271-23	TRANSISTOR 2SC2712			
Q5	8-729-271-23	TRANSISTOR 2SC2712			
Q6	8-729-805-41	TRANSISTOR 2SC3398			
Q101	8-729-271-23	TRANSISTOR 2SC2712			
Q102	8-729-271-23	TRANSISTOR 2SC2712			
Q103	8-729-271-23	TRANSISTOR 2SC2712			
Q104	8-729-100-76	TRANSISTOR 2SA812			
Q201	8-729-805-41	TRANSISTOR 2SC3398			
Q401	8-729-271-23	TRANSISTOR 2SC2712			
Q402	8-729-271-23	TRANSISTOR 2SC2712			
Q403	8-729-271-23	TRANSISTOR 2SC2712			
Q404	8-729-271-23	TRANSISTOR 2SC2712			
Q405	8-729-271-23	TRANSISTOR 2SC2712			
Q406	8-729-271-23	TRANSISTOR 2SC2712			
Q407	8-729-805-41	TRANSISTOR 2SC3398			
Q408	8-729-804-42	TRANSISTOR 2SB1122-T			
Q409	8-729-100-76	TRANSISTOR 2SA812			
Q501	8-729-271-23	TRANSISTOR 2SC2712			
Q502	8-729-808-02	TRANSISTOR 2SD1622			
Q503	8-729-201-78	TRANSISTOR 2SD1406			
Q504	8-729-271-23	TRANSISTOR 2SC2712			
Q505	8-729-805-20	TRANSISTOR 2SB1202			
Q506	8-729-805-41	TRANSISTOR 2SC3398			
Q507	8-729-805-41	TRANSISTOR 2SC3398			
R1	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R2	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R3	1-249-387-11	CARBON MELF	3.3	5%	1/5W
R4	1-249-429-11	CARBON MELF	10K	5%	1/5W
R5	1-249-441-11	CARBON MELF	100K	5%	1/5W
R6	1-249-411-11	CARBON MELF	330	5%	1/5W
R7	1-249-429-11	CARBON MELF	10K	5%	1/5W
R8	1-249-431-11	CARBON MELF	15K	5%	1/5W
R9	1-249-366-11	CARBON MELF	0	5%	1/5W
R10	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R11	1-249-437-11	CARBON MELF	47K	5%	1/5W
R12	1-249-429-11	CARBON MELF	10K	5%	1/5W
R13	1-249-432-11	CARBON MELF	18K	5%	1/5W
R14	1-249-437-11	CARBON MELF	47K	5%	1/5W
R15	1-249-431-11	CARBON MELF	15K	5%	1/5W
R16	1-249-429-11	(US,Canadian)...CARBON MELF	10K	5%	1/5W
R16	1-249-432-11	(AEP,E).....CARBON MELF	18K	5%	1/5W
R17	1-249-429-11	CARBON MELF	10K	5%	1/5W
R18	1-249-393-11	CARBON MELF	10	5%	1/5W
R19	1-249-426-11	CARBON MELF	5.6K	5%	1/5W
R20	1-249-437-11	CARBON MELF	47K	5%	1/5W
R21	1-249-433-11	CARBON MELF	22K	5%	1/5W
R22	1-215-452-00	CARBON MELF	20K	5%	1/5W
R23	1-215-460-00	CARBON MELF	43K	5%	1/5W
R24	1-249-434-11	CARBON MELF	27K	5%	1/5W
R25	1-215-460-00	CARBON MELF	43K	5%	1/5W
R26	1-249-434-11	CARBON MELF	27K	5%	1/5W
R27	1-249-437-11	CARBON MELF	47K	5%	1/5W
R30	1-249-437-11	CARBON MELF	47K	5%	1/5W
R31	1-215-438-00	CARBON MELF	5.1K	5%	1/5W
R32	1-249-422-11	CARBON MELF	2.7K	5%	1/5W
R34	1-249-436-11	CARBON MELF	39K	5%	1/5W
R35	1-249-426-11	CARBON MELF	5.6K	5%	1/5W
R51	1-249-429-11	CARBON MELF	10K	5%	1/5W
R52	1-249-429-11	CARBON MELF	10K	5%	1/5W
R53	1				
R54	1				
R55	1				
R101	1				
R102	1				
R103	1				
R104	1				
R105	1				
R106	1				
R107	1				
R108	1				
R109	1				
R110	1				
R111	1				
R112	1				
R113	1				
R114	1				
R115	1				
R116	1				
R117	1				
R118	1				
R119	1				
R120	1				
R201					
R202					
R204					
R205					
R206					
R207					
R208					
R209					
R210					
R211					
R402					
R403					
R404					
R405					
R406					
R407					
R408					
R409					
R410					
R411					
R412					
R413					

Ref.No.	Part No.	Description			
R53	1-249-429-11	CARBON MELF	10K	5%	1/5W
R54	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R55	1-249-429-11	CARBON MELF	10K	5%	1/5W
R101	1-249-435-11	CARBON MELF	33K	5%	1/5W
R102	1-249-435-11	CARBON MELF	33K	5%	1/5W
R103	1-215-468-00	CARBON MELF	91K	5%	1/5W
R104	1-249-441-11	CARBON MELF	100K	5%	1/5W
R105	1-215-468-00	CARBON MELF	91K	5%	1/5W
R106	1-249-441-11	CARBON MELF	100K	5%	1/5W
R107	1-249-417-11	CARBON MELF	1K	5%	1/5W
R108	1-249-417-11	CARBON MELF	1K	5%	1/5W
R109	1-249-429-11	CARBON MELF	10K	5%	1/5W
R110	1-249-429-11	CARBON MELF	10K	5%	1/5W
R111	1-249-429-11	CARBON MELF	10K	5%	1/5W
R112	1-249-429-11	CARBON MELF	10K	5%	1/5W
R113	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R114	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R115	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R116	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R117	1-249-417-11	CARBON MELF	1K	5%	1/5W
R118	1-249-429-11	CARBON MELF	10K	5%	1/5W
R119	1-249-417-11	CARBON MELF	1K	5%	1/5W
R120	1-249-441-11	CARBON MELF	100K	5%	1/5W
R201	1-249-441-11	CARBON MELF	100K	5%	1/5W
R202	1-249-441-11	CARBON MELF	100K	5%	1/5W
R204	1-249-437-11	CARBON MELF	47K	5%	1/5W
R205	1-249-429-11	CARBON MELF	10K	5%	1/5W
R206	1-249-429-11	CARBON MELF	10K	5%	1/5W
R207	1-249-441-11	CARBON MELF	100K	5%	1/5W
R208	1-249-441-11	CARBON MELF	100K	5%	1/5W
R209	1-249-441-11	CARBON MELF	100K	5%	1/5W
R210	1-249-441-11	CARBON MELF	100K	5%	1/5W
R211	1-249-434-11	CARBON MELF	27K	5%	1/5W
R402	1-249-433-11	CARBON MELF	22K	5%	1/5W
R403	1-249-433-11	CARBON MELF	22K	5%	1/5W
R404	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R405	1-249-417-11	CARBON MELF	1K	5%	1/5W
R406	1-249-424-11	CARBON MELF	3.9K	5%	1/5W
R407	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R408	1-249-429-11	CARBON MELF	10K	5%	1/5W
R409	1-249-417-11	CARBON MELF	1K	5%	1/5W
R410	1-249-417-11	CARBON MELF	1K	5%	1/5W
R411	1-249-419-11	CARBON MELF	1.5K	5%	1/5W
R412	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R413	1-215-493-00	CARBON MELF	1M	5%	1/5W
R414	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R415	1-249-417-11	CARBON MELF	1K	5%	1/5W
R416	1-249-438-11	CARBON MELF	56K	5%	1/5W
R417	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R418	1-249-411-11	CARBON MELF	330	5%	1/5W
R419	1-249-435-11	CARBON MELF	33K	5%	1/5W
R501	1-249-417-11	CARBON MELF	1K	5%	1/5W
R502	1-249-417-11	CARBON MELF	1K	5%	1/5W
R503	1-249-417-11	CARBON MELF	1K	5%	1/5W
R504	1-249-429-11	CARBON MELF	10K	5%	1/5W
R505	1-249-435-11	CARBON MELF	33K	5%	1/5W
R506	1-249-417-11	CARBON MELF	1K	5%	1/5W
R507	1-249-417-11	CARBON MELF	1K	5%	1/5W
R508	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R509	1-249-435-11	CARBON MELF	33K	5%	1/5W
RV1	1-228-995-00	RES, ADJ, CARBON 22K (FM STOP LEVEL)			
RV2	1-228-991-00	RES, ADJ, CARBON 2.2K (SEPARETION)			
RV51	1-228-995-00	RES, ADJ, CARBON 22K (AM STOP LEVEL)			
S201	1-553-510-00	(E)...SWITCH SLIDE (9K/10K)			
T1	1-404-776-11	TRANSFORMER, DISCRIMINATOR			
TU51	1-463-938-11	TUNER UNIT (AM)			
X1	1-567-250-11	OSCILLATOR, CERAMIC (18.95kHz)			
X201	1-567-775-21	VIBRATOR, CERAMIC (4.19MHz)			
X401	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)			

ACCESSORY & PACKING MATERIAL

3-323-268-01	TAPE (C), MAGIC
3-323-269-01	TAPE (D), MAGIC
3-769-769-11	MANUAL, INSTRUCTION
3-769-769-41	(AEP)...MANUAL, INSTRUCTION
1-557-820-11	CORD, CONNECTION
3-320-636-01	BAG (C), PROTECTION
3-331-208-01	CUSHION (K)
3-567-767-01	INDIVIDUAL CARTON

9-953-037-11

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Audio Group

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